



12AY7

MEDIUM-MU TWIN TRIODE

MINIATURE TYPE

12AY7

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater Arrangement	Series	Parallel
Voltage	12.6*	6.3 ac or dc volts
Current	0.15	0.3 amp

Direct Interelectrode Capacitances (Without External Shield)—Each Unit:

Grid to Plate	1.3	 $\mu\mu\text{f}$
Input	1.3	 $\mu\mu\text{f}$
Output	0.6	 $\mu\mu\text{f}$

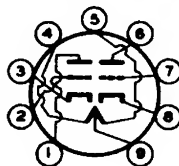
Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	250	volts
Grid Voltage	-4	volts
Amplification Factor	40	
Plate Resistance (Approx.)	22800	ohms
Transconductance	1750	μmhos
Plate Current	3	ma
Grid Voltage (Approx.) for plate current of 10 μamp	-11	volts

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" $\pm$ 3/32"
Maximum Diameter	7/8"
Bulb	T-6-1/2
Base	Small-Button Noval 9-Pin (JETEC No. E9-1)
Basing Designation for BOTTOM VIEW	9A

Pin 1—Plate of
Unit No.2
Pin 2—Grid of
Unit No.2
Pin 3—Cathode of
Unit No.2
Pin 4—Heater
Pin 5—Heater



Pin 6—Plate of
Unit No.1
Pin 7—Grid of
Unit No.1
Pin 8—Cathode of
Unit No.1
Pin 9—Heater
Mid-Tap

* Use of the 12.6-volt connection with an ac-heater supply is not recommended for applications involving low hum.

(continued on next page)

APRIL 1, 1953

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TENTATIVE DATA

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MEDIUM-MU TWIN TRIODE

AMPLIFIER-Class A₁

Values are for each unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300 max.	volts
GRID VOLTAGE:		
Negative bias value	50 max.	volts
Positive bias value	0 max.	volts
PLATE DISSIPATION	1.5 max.	watts
CATHODE CURRENT	10 max.	ma
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90 max.	volts
Heater positive with respect to cathode	90 max.	volts

Typical Operation as Resistance-Coupled Amplifier:

See RESISTANCE-COUPLED AMPLIFIER CHART No.28
at front of Receiving Tube Section

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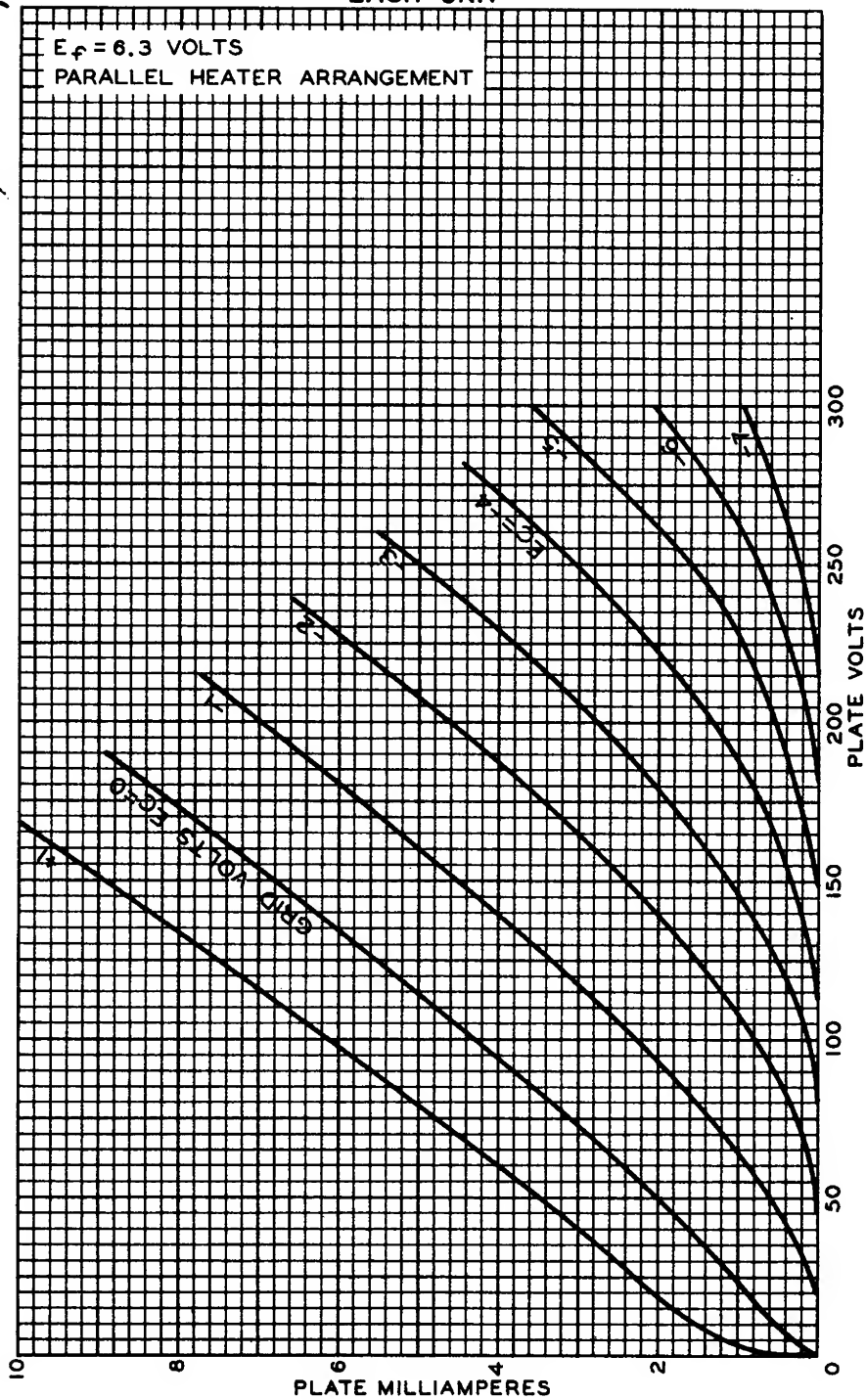
TENTATIVE DATA



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AVERAGE PLATE CHARACTERISTICS EACH UNIT

$E_f = 6.3$ VOLTS
PARALLEL HEATER ARRANGEMENT



NOV. 5, 1952

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